

## REMARKS

Upon entry of the foregoing claim amendments, Claims 1 and 3-13 remain pending in the above-captioned application. Claim 3 was canceled in a previous action without prejudice, and Applicants reserve the right to pursue the subject matter in the canceled claim at a later date. Claims 1, 4, and 5 have been amended. New claims 10-13 have been added. Support for these amendments can be found, for example, in at least the non-limiting embodiments described at least in paragraphs [0046] and [0049] and shown in Figure 2 of the originally filed specification. No new matter has been added. Applicants respectfully request the Examiner to reconsider the present application in view of the foregoing amendments and following remarks.

### **Rejection of the Claims Under 35 U.S.C. § 103**

The Office Action rejected Claims 1 and 3-9 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,216,027 to Thompson (hereinafter “Thompson ‘027”) in view of U.S. Patent No. 5,275,287 to Thompson (hereinafter “Thompson ‘287”), and as being unpatentable over Thompson ‘027 in view of U.S. Patent No. 3,069,040 to Corsette.

Applicants respectfully traverse these rejections; however, to expedite prosecution Applicants have amended Claims 1, 4, and 5 to further clarify the claimed subject matter.

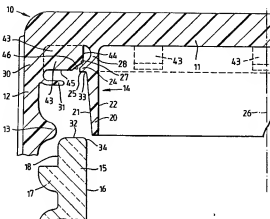
#### *Thompson ‘027 in view of Thompson ‘287*

Thompson ‘287 teaches a “molded screw-threaded plastics closure has depending from the underside of the top an annular sealing portion spaced inward of the skirt. The sealing portion includes a plug part with a sealing rib for engaging the internal surface of the neck of a container, a radially outwardly projecting flange above the plug part, and a waisted pivot part disposed between the flange and the top.” See Abstract.

Thompson ‘287 further teaches:

As the closure is screwed home, the upper portions of the frusto-conical surface 21 comes into sealing engagement with the internal surface 16 of the neck and the end 32 of the neck comes into sealing abutment with the flange 24. The flange 24 is rendered stiff by the buttressing effect arising from the shape of its upper surface 27, so that as the closure is tightened, this abutment cause the flange and the sealing portion 14 to pivot radially outward about the annular hinge 28 so as to pivot the plug part into tighter sealing engagement ...”

See col. 2, lines 48-59 and Figure 1 reproduced below.



Thompson II – Figure 1

The Office Action admits that “Thompson ‘027 does not disclose a positioning protrusion provided on the top plate that contacts the opening edge when the opening edge seal projection is bent and deformed until contacting the cap body, and wherein the positioning protrusion is integrated with the inner seal projection so as not to have a gap therebetween in the radial direction of the synthetic resin cap.” Office Action at page 2. The Office Action alleges that Thompson ‘287 teaches a cap with “a circular opening edge seal projection 20 formed on the inner surface of the top plate which contacts an opening edge of a container opening and a positioning protrusion 24 provided on the top plate that contacts the opening edge when the cap body is seated on the container.” Office Action at page 3. However, as discussed below, Applicants respectfully submit that Claims 1 and 3-9 are novel and nonobvious because Thompson ‘027 in view of Thompson ‘287 does not teach, suggest, or disclose, either alone or in combination, all of the claimed elements of amended independent claims 1, 4, and 5.

In particular, the combination of Thompson ‘027 and Thompson ‘287 fails to disclose, teach, or suggest, *inter alia*, a synthetic resin cap “wherein the positioning protrusion is configured so as to maintain a predetermined position thereof in relation to the top plate, whether or not the inner seal projection is bend and/or deformed,” as recited, among other features, in amended Claims 1, 4, and 5.

Further, the combination of the two cited Thompson references also fails to disclose, teach, or suggest, *inter alia*, a synthetic resin cap comprising an inner seal projection “wherein a positioning protrusion is provided on the top plate that contacts the opening edge when the opening edge seal projection is bent and deformed until contacting the cap body,” as recited, among other features, in Claims 1, 4, and 5.

As set forth above, the Office Action alleges Thompson '287 discloses or teaches a positioning protrusion provided on the top plate. Applicants respectfully disagree with the characterization of Thompson '287. Thompson '287 discloses "[t]he sealing portion 14 includes an annular plug part 20, a radially outwardly projecting annular flange 24 and an annular hinge part 28 between the flange 24 and the top." See col. 2, lines 15-18. Thus, the Office Action incorrectly characterizes the flange 24 as being provided on the top, when in fact the flange 24 is radially outwardly projecting from the sealing portion 14 and the flange 24 is further separated from the top by the annular hinge part 28.

The Office Action alleges it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of a positioning protrusion 24 provided on the top plate that contacts the opening edge when the cap body is seated on the container and wherein the positioning protrusion is integrated with the inner seal projection so as not to have a gap therebetween in the radial direction of the synthetic resin cap to the cap of Thompson '027 because do so provides a more effective leak-resistant sealing arrangement between the cap and container. However, even if the combination of Thompson '027 and Thompson '287 were proper, which Applicants do not concede, one of ordinary skill in the art would not be able to produce the invention as claimed in Claims 1, 4, and 5 by modifying the cap of Thompson '027 with the teachings of Thompson '027.

As discussed above, Thompson '287 discloses a flange feature, flange 24, that extends radially outward from a downward extending sealing portion 14, rather than the flange feature being provided on the top plate. Accordingly, modifying the cap of Thompson '027 with Thompson '287 would still result in a cap device where the flange element is not provided on the top plate, as recited in Claims 1, 4, and 5.

Further, it would not have been obvious to modify the flange element of Thompson '287 by extending the flange element upward to the top plate such that the flange element would be provided on the top plate because such a modification would frustrate the purpose of Thompson '287. As noted in MPEP § 2143.01(V), a *prima facie* showing of obviousness cannot be maintained when a proposed modification would render the prior art unsatisfactory for its intended purpose. In the present case, Thompson '287 discloses a pivot point, or fulcrum, between the flange feature and the top plate that serves the purpose of pivoting the sealing portion outward against a container in order to seal the container when the cap is installed onto

the container. Modifying the flange feature to extend to the top plate would eliminate the pivot point, or fulcrum, that provides the ability to pivot the sealing portion 14 that extends downward from the top part of the cap, and the sealing portion 14 would not move radially outward to seal against the container when the cap is installed on a container. Thus, there would be no reason for one having ordinary skill in the art to make the modification proposed by the Examiner. Absent such a reason, there can be no *prima facie* showing of obviousness.

The Office Action further states that “[r]egarding the shape of the positioning protrusion as set forth in claim 6, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the positioning protrusion of a rectangular shape since such a modification would have involved a mere change in the shape of a component.” However, in the present case, the change in shape required to produce the presently claimed invention would not have been obvious. A change in shape from an angled triangular shape as disclosed, to a square or rectangular shape as suggested by the Office Action, would render the intended purpose of the flange feature inoperable as a rectangular shaped flange would prevent how the sealing portion can deflect radially outward because a rectangular shape would contact the top plate prematurely. The disclosed angled upper side of the flange 24 allows the sealing portion to pivot about the fulcrum without contacting the top plate, which the square shape would not allow. Further, nowhere in the specification is a rectangular shaped cross-section disclosed or suggested for the flange 24. Thus, there would also be no reason for one having ordinary skill in the art to make the change in shape suggested by the Examiner.

Therefore, Applicants respectfully submit that amended Claims 1, 4, and 5 are novel and nonobvious in view of Thompson ‘027 and Thompson ‘287, either alone or in combination, and are therefore patentable over the cited secondary reference. Claims 3 and 6-9 depend from Claim 1. Applicants submit that Claims 3 and 6-9 are likewise allowable, not only because they depend from an allowable base claim, but also because each of these claims recite a unique combination of features not disclosed or taught by the cited references.

Therefore, for at least these reasons, Applicants respectfully request the Examiner to withdraw these rejections and pass Claims 1 and 3-9 to immediate allowance. Further, Applicants respectfully submit that the Application is in condition for immediate allowance.

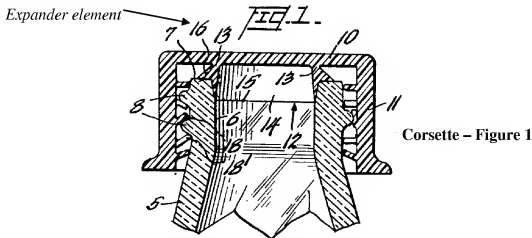
*Thompson '027 in view of Corsette*

Corsette teaches an improved container closure having “an improved seal including a primary sealing rib or element adapted for reception in and radial expansion into sealing engagement within the dispensing opening of the container, incident to endwise or axial abutment of an expander element or portion of the seal with the container.” See col. 1, lines 11-16.

Corsette further teaches:

In order to produce the radial expansion of the seal 14 into operative sealing engagement within the opening 6 as the cap is applied to the container, there is provided an expander element 16 concentrically encircling and substantially rigidly connected to the sealing rib 14 at an axial location adjacent its base, or in other words, spaced substantially from the depending free end edge 15 and adjacent the connection or fulcrum point 13. Expander element 16 projects radially outwardly from the sealing rib 14 for axial abutting engagement with the container end wall 7 around the opening 6 at points spaced radially outwardly from the flexible connection or fulcrum 13. Thus as the cap is applied and urged downwardly onto the bottle expander element 16 by its abutting axial engagement with the container end 7, it acts in the manner of a lever arm to flex the entire sealing element 12 including the sealing rib 14 radially outwardly about the connection 13. In doing so it will obviously radially expand the sealing rib 14 to an extent which, of course, progressively increases toward the depending free end edge 15 of the sealing rib to thereby bring the outer surface of the rib and its edge 15 into sealing engagement with the wall which defines the opening 6.

See col. 2, lines 34-57 and Figure 1 reproduced below.



The Office Action admits that “Thompson ‘027 does not disclose a positioning protrusion is provided on the top plate that contacts the opening edge when the opening edge seal projection is bent and deformed until contacting the cap body, and wherein the positioning protrusion is integrated with the inner seal projection so as not to have a gap therebetween in the radial direction of the synthetic resin cap.” Office Action at page 2. The Office Action alleges that Corsette teaches “...a circular opening edge seal projection 14 formed on the inner surface of the top plate which contacts an opening edge of a container opening and a positioning protrusion 16 provided on the top plate that contacts the opening edge when the cap body is seated on the container.” Office Action at page 4. However, Applicants respectfully submit that Claims 1 and 3-9 are novel and nonobvious because Thompson ‘027 in view of Corsette does not teach, suggest, or disclose, either alone or in combination, all of the claimed elements of amended independent claims 1, 4, and 5.

In particular, Thompson ‘027 and Corsette fail to disclose, teach, or suggest, either alone or in combination, *inter alia*, a synthetic resin cap “wherein the positioning protrusion is configured so as to maintain a predetermined position thereof in relation to the top plate, whether or not the inner seal projection is bend and/or deformed,” as recited, among other features, in amended Claims 1, 4, and 5.

Further, Thompson ‘027 and Corsette fail to disclose, teach, or suggest, either alone or in combination, *inter alia*, a synthetic resin cap comprising an inner seal projection “wherein a positioning protrusion is provided on the top plate that contacts the opening edge when the opening edge seal projection is bent and deformed until contacting the cap body,” as recited, among other features, in Claims 1, 4, and 5.

As set forth above, the Office Action alleges Corsette discloses or teaches a positioning protrusion provided on the top plate. Applicants respectfully disagree with the characterization of Corsette. Corsette discloses that “there is provided an expander element 16 concentrically encircling and substantially rigidly connect to the sealing rib 14 at an axial location adjacent its base.” See col. 2, lines 36-39. The Office Action incorrectly characterizes the expander element 16 as being provided on the top, when in fact the expander element 16 is connected to the sealing rib 14, where the sealing rib is “an axially depending annular sealing rib,” see col. 2, lines 18-19, that is an included part of seal 12, and where the seal 12 is “integrally formed of resiliently flexible and stretchable material having a flexible connection 13 to the top wall 10,” see col. 2,

lines 11-14. Thus, the expander element 16 is provided on the seal 12, or the sealing rib 14, and is not provided on the top plate.

Applicants submit that even if the combination of Thompson '027 and Corsette were proper, which Applicants do not concede, one of ordinary skill in the art would not achieve the invention as claimed in Claims 1, 4, and 5 by modifying the cap of Thompson '027 with the teachings of Corsette. As discussed above, Corsette discloses a flange feature that extends radially outward from a downward extending sealing portion, rather than the flange feature being provided on the top plate. Accordingly, modifying the cap of Thompson '027 with Corsette would still result in a cap device where the flange element is not provided on the top plate, as recited in Claims 1, 4, and 5.

Further, it would not have been obvious to modify the flange element of Corsette by extending the flange element axially upward to the top plate such that the flange element would be provided on the top plate because such a modification would frustrate the purpose of Corsette, which discloses a pivot point, or fulcrum, between the flange feature and the top plate that serves the purpose of pivoting the sealing portion outward to seal against a container when the cap is installed onto the container. Modifying the flange feature to extend to the top plate would eliminate the pivot point, or fulcrum, which provides the ability to pivot the sealing portion that extends downward from the top part of the cap, and the sealing portion would not move radially outward to seal against the container when the cap is installed on a container.

The Office Action further states that “[r]egarding the shape of the positioning protrusion as set forth in claim 6, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the positioning protrusion of a rectangular shape since such a modification would have involved a mere change in the shape of a component.” However, as noted above in connection with the discussion of the two Thompson references, a change in shape from an angled triangular shape as disclosed, to a rectangular shape as suggested by the Office Action, would render the intended purpose of the flange feature inoperable as a rectangular shaped flange would prevent how the sealing portion can deflect radially outward because a rectangular shape would contact the top plate prematurely. The disclosed angled upper side of the flange feature, or expander element 16, allows the sealing portion to pivot about the fulcrum without contacting the top plate, which the square shape would not allow. Further,

nowhere in the specification is a rectangular shaped cross-section disclosed or suggested for the flange feature, or expander element 16.

Therefore, Applicants respectfully submit that amended Claims 1, 4, and 5 are novel and nonobvious in view of Thompson '027 and Corsette, either alone or in combination, and are therefore patentable over the cited secondary reference. Claims 3 and 6-9 depend from Claim 1. Applicants submit that Claims 3 and 6-9 are likewise allowable, not only because they depend from an allowable base claim, but also because each of these claims recite a unique combination of features not disclosed or taught by the cited references.

Therefore, for at least these reasons, Applicants respectfully request the Examiner to withdraw these rejections and pass Claims 1 and 3-9 to immediate allowance. Further, Applicants respectfully submit that the Application is in condition for immediate allowance.

#### New Claims

Applicants have added new claims 10-12, which depend from Claims 1, 4, and 5, respectively. Accordingly, Applicants submit that Claims 10-12 are likewise allowable over Thompson '027, Thompson '287, and Corsette, not only because they depend from an allowable base claim, but also because each of these claims recite a unique combination of features not disclosed, taught, or suggested by the cited art.

Applicants have added new Claim 13. Applicants respectfully submit that Thompson '027, Thompson '287, and Corsette fail to teach, suggest, or disclose, either alone or in combination, *inter alia*, a synthetic resin cap comprising an inner seal projection "wherein the inner seal projection is bent at a base part thereof that is located equally or further away from the top plate than the positioning protrusion," as recited, among other features, in new Claim 13.

Further, as set forth above, Thompson '027, Thompson '287, and Corsette fail to teach, suggest, or disclose, either alone or in combination, *inter alia*, a synthetic resin cap comprising an inner seal projection "wherein a positioning protrusion is provided on the top plate that contacts the opening edge when the opening edge seal projection is bent and deformed until contacting the cap body," as recited, among other features, in new Claim 13. As set forth above, the references do not disclose a protrusion provided on the top plate.

Therefore, for at least these reasons, Applicants respectfully request the Examiner to pass Claims 10-13 to immediate allowance.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

Co-Pending Applications of Assignee

Applicant wishes to draw the Examiner's attention to the following co-pending applications of the present application's assignee.

Docket No.	Serial No.	Title	Filed
SHIGA5.003APC	10/554,578	SYNTHETIC RESIN CAP, CLOSING DEVICE, AND CONTAINER-PACKED BEVERAGE	07/28/2004

CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance in view of the above remarks. Any remarks in support of patentability of one claim, however, should not be imputed to any other claim, even if similar terminology is used. Additionally, any remarks referring to only a portion of a claim should not be understood to base patentability on that portion; rather, patentability must rest on each claim taken as a whole. Applicants respectfully traverse each of the Examiner's rejections and each of the Examiner's assertions regarding what the prior art shows or teaches, even if not expressly discussed herein. Although amendments have been made, no acquiescence or estoppel is or should be implied thereby. Rather, the amendments are made only to expedite prosecution of the present application, and without

prejudice to presentation or assertion, in the future, of claims on the subject matter affected thereby.

The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the claims in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call Applicants' attorney, in order to resolve such issues promptly.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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